



FEB 04 2002
TECH CENTER 1600/2900

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Pinard, Marc
Lawton, Trebor

<120> PRION PROTEIN PEPTIDES AND USES THEREOF

<130> 50111/002002

<140> US 09/602,775

<141> 2000-06-23

<150> 60/140,634

<151> 1999-06-23

<160> 34

<170> FastSEQ for Windows Version 4.0

<210> 1

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<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide

<221> VARIANT

<222> (1)...(4)

<223> Xaa = Any Amino Acid

<400> 1

Xaa Tyr Tyr Xaa

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<210> 2

<211> 7

<212> PRT

<213> Artificial Sequence

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<223> Synthetic peptide

<221> VARIANT

<222> (1)...(7)

<223> Xaa = Any Amino Acid

<400> 2

Xaa Tyr Tyr Xaa Tyr Tyr Xaa

1

5

<210> 3
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<220>
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<221> VARIANT
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<400> 3
Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
1 5 10

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<220>
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<221> VARIANT
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<223> Xaa = Any Amino Acid

<400> 4
Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
1 5 10

<210> 5
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<221> VARIANT
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<223> Xaa = Any Amino Acid

<400> 5
Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
1 5 10 15

<210> 6
<211> 19

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<221> VARIANT
<222> (1)...(19)
<223> Xaa = Any Amino Acid

<400> 6
Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
1 5 10 15
Tyr Tyr Xaa

<210> 7
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<220>
<223> Synthetic peptide

<221> VARIANT
<222> (1)...(22)
<223> Xaa = Any Amino Acid

<400> 7
Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
1 5 10 15
Tyr Tyr Xaa Tyr Tyr Xaa
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<210> 8
<211> 25
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<213> Artificial Sequence

<220>
<223> Synthetic peptide

<221> VARIANT
<222> (1)...(25)
<223> Xaa = Any Amino Acid

<400> 8
Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
1 5 10 15
Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
20 25

<210> 9

<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<221> VARIANT
<222> (1)...(28)
<223> Xaa = Any Amino Acid

<400> 9
Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
1 5 10 15
Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
20 25

<210> 10
<211> 31
<212> PRT
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<220>
<223> Synthetic peptide

<221> VARIANT
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<223> Xaa = Any Amino Acid

<400> 10
Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
1 5 10 15
Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
20 25 30

<210> 11
<211> 34
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<220>
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<221> VARIANT
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<223> Xaa = Any Amino Acid

<400> 11
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Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr
20 25 30
Tyr Xaa

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<220>
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<221> VARIANT
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<223> Xaa = Any Amino Acid

<400> 12
Xaa Tyr Tyr Arg
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<210> 13
<211> 4
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<220>
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<221> VARIANT
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<223> Xaa = Any Amino Acid

<400> 13
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<210> 14
<211> 4
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<220>
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<221> VARIANT
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<223> Xaa = Any Amino Acid

<400> 14
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<210> 15
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<212> PRT
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<220>
<223> Synthetic peptide

<221> VARIANT
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<223> Xaa = Any Amino Acid

<400> 15
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1 5 10

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<220>
<223> Synthetic peptide

<221> VARIANT
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<400> 16
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1 5 10 15

<210> 17
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<221> VARIANT
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<223> Xaa = Any Amino Acid

<400> 17
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1 5 10 15
Tyr Tyr Xaa

<210> 18
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<220>
<223> Synthetic peptide

<221> VARIANT
 <222> (1)...(22)
 <223> Xaa = Any Amino Acid

<400> 18
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 1 5 10 15
 Tyr Tyr Xaa Tyr Tyr Xaa
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<210> 19
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 <212> PRT
 <213> Artificial Sequence

<220>
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<221> VARIANT
 <222> (1)...(25)
 <223> Xaa = Any Amino Acid

<400> 19
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 1 5 10 15
 Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
 20 25

<210> 20
 <211> 28
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 <213> Artificial Sequence

<220>
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<221> VARIANT
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 <223> Xaa = Any Amino Acid

<400> 20
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 1 5 10 15
 Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
 20 25

<210> 21
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<220>
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<221> VARIANT
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 <223> Xaa = Any Amino Acid

<400> 21
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 1 5 10 15
 Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
 20 25 30

<210> 22
 <211> 34
 <212> PRT
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<220>
 <223> Synthetic peptide

<221> VARIANT
 <222> (1)...(34)
 <223> Xaa = Any Amino Acid

<400> 22
 Xaa Tyr Tyr Xaa Xaa Tyr Tyr Xaa Tyr Tyr Tyr Tyr Xaa Tyr Tyr Xaa
 1 5 10 15
 Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr
 20 25 30
 Tyr Xaa

<210> 23
 <211> 37
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic peptide

<221> VARIANT
 <222> (1)...(37)
 <223> Xaa = Any Amino Acid

<400> 23
 Xaa Tyr Tyr Xaa Xaa Tyr Tyr Xaa Tyr Tyr Tyr Tyr Xaa Tyr Tyr Xaa
 1 5 10 15
 Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr
 20 25 30
 Tyr Xaa Tyr Tyr Xaa
 35

<210> 24
 <211> 40
 <212> PRT
 <213> Artificial Sequence

<220>
<223> Synthetic peptide

<221> VARIANT
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<223> Xaa = Any Amino Acid

<400> 24
Xaa Tyr Tyr Xaa Xaa Tyr Tyr Xaa Tyr Tyr Tyr Tyr Xaa Tyr Tyr Xaa
1 5 10 15
Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa Tyr
20 25 30
Tyr Xaa Tyr Tyr Xaa Tyr Tyr Xaa
35 40

<210> 25
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<221> VARIANT
<222> (1)...(10)
<223> Xaa = Any Amino Acid

<400> 25
Xaa Tyr Tyr Arg Arg Tyr Tyr Arg Tyr Tyr
1 5 10

<210> 26
<211> 264
<212> PRT
<213> Bos taurus

<400> 26
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1 5 10 15
Met Trp Ser Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly
20 25 30
Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly
35 40 45
Gly Asn Arg Tyr Pro Pro Gln Gly Gly Gly Trp Gly Gln Pro His
50 55 60
Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His
65 70 75 80
Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His
85 90 95
Gly Gly Gly Gly Trp Gly Gln Gly Gly Thr His Gly Gln Trp Asn Lys
100 105 110
Pro Ser Lys Pro Lys Thr Asn Met Lys His Val Ala Gly Ala Ala Ala
115 120 125
Ala Gly Ala Val Val Gly Gly Leu Gly Gly Tyr Met Leu Gly Ser Ala
130 135 140

Met	Ser	Arg	Pro	Leu	Ile	His	Phe	Gly	Ser	Asp	Tyr	Glu	Asp	Arg	Tyr
145					150					155					160
Tyr	Arg	Glu	Asn	Met	His	Arg	Tyr	Pro	Asn	Gln	Val	Tyr	Tyr	Arg	Pro
			165						170					175	
Val	Asp	Gln	Tyr	Ser	Asn	Gln	Asn	Asn	Phe	Val	His	Asp	Cys	Val	Asn
			180					185					190		
Ile	Thr	Val	Lys	Glu	His	Thr	Val	Thr	Thr	Thr	Thr	Lys	Gly	Glu	Asn
		195					200					205			
Phe	Thr	Glu	Thr	Asp	Ile	Lys	Met	Met	Glu	Arg	Val	Val	Glu	Gln	Met
	210					215					220				
Cys	Ile	Thr	Gln	Tyr	Gln	Arg	Glu	Ser	Gln	Ala	Tyr	Tyr	Gln	Arg	Gly
225					230					235					240
Ala	Ser	Val	Ile	Leu	Phe	Ser	Ser	Pro	Pro	Val	Ile	Leu	Leu	Ile	Ser
			245						250					255	
Phe	Leu	Ile	Phe	Leu	Ile	Val	Gly								
			260												

<210> 27
 <211> 253
 <212> PRT
 <213> Homo sapiens

<400> 27															
Met	Ala	Asn	Leu	Gly	Cys	Trp	Met	Leu	Val	Leu	Phe	Val	Ala	Thr	Trp
1				5					10					15	
Ser	Asp	Leu	Gly	Leu	Cys	Lys	Lys	Arg	Pro	Lys	Pro	Gly	Gly	Trp	Asn
		20						25					30		
Thr	Gly	Gly	Ser	Arg	Tyr	Pro	Gly	Gln	Gly	Ser	Pro	Gly	Gly	Asn	Arg
	35					40						45			
Tyr	Pro	Pro	Gln	Gly	Gly	Gly	Gly	Trp	Gly	Gln	Pro	His	Gly	Gly	Gly
	50					55					60				
Trp	Gly	Gln	Pro	His	Gly	Gly	Gly	Trp	Gly	Gln	Pro	His	Gly	Gly	Gly
65				70					75						80
Trp	Gly	Gln	Pro	His	Gly	Gly	Gly	Trp	Gly	Gln	Gly	Gly	Gly	Thr	His
			85					90						95	
Ser	Gln	Trp	Asn	Lys	Pro	Ser	Lys	Pro	Lys	Thr	Asn	Met	Lys	His	Met
		100						105					110		
Ala	Gly	Ala	Ala	Ala	Ala	Gly	Ala	Val	Val	Gly	Gly	Leu	Gly	Gly	Tyr
	115					120						125			
Met	Leu	Gly	Ser	Ala	Met	Ser	Arg	Pro	Ile	Ile	His	Phe	Gly	Ser	Asp
	130				135						140				
Tyr	Glu	Asp	Arg	Tyr	Tyr	Arg	Glu	Asn	Met	His	Arg	Tyr	Pro	Asn	Gln
145					150					155					160
Val	Tyr	Tyr	Arg	Pro	Met	Asp	Glu	Tyr	Ser	Asn	Gln	Asn	Asn	Phe	Val
			165					170						175	
His	Asp	Cys	Val	Asn	Ile	Thr	Ile	Lys	Gln	His	Thr	Val	Thr	Thr	Thr
		180						185					190		
Thr	Lys	Gly	Glu	Asn	Phe	Thr	Glu	Thr	Asp	Val	Lys	Met	Met	Glu	Arg
	195					200						205			
Val	Val	Glu	Gln	Met	Cys	Ile	Thr	Gln	Tyr	Glu	Arg	Glu	Ser	Gln	Ala
	210					215					220				
Tyr	Tyr	Gln	Arg	Gly	Ser	Ser	Met	Val	Leu	Phe	Ser	Ser	Pro	Pro	Val
225					230					235					240
Ile	Leu	Leu	Ile	Ser	Phe	Leu	Ile	Phe	Leu	Ile	Val	Gly			
			245						250						

<210> 28

<211> 256
 <212> PRT
 <213> Ovis aries

<400> 28
 Met Val Lys Ser His Ile Gly Ser Trp Ile Leu Val Leu Phe Val Ala
 1 5 10 15
 Met Trp Ser Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly
 20 25 30
 Gly Trp Asn Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly
 35 40 45
 Gly Asn Arg Tyr Pro Pro Gln Gly Gly Gly Gly Trp Gly Gln Pro His
 50 55 60
 Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Pro His
 65 70 75 80
 Gly Gly Gly Trp Gly Gln Pro His Gly Gly Gly Trp Gly Gln Gly
 85 90 95
 Gly Ser His Ser Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Met
 100 105 110
 Lys His Val Ala Gly Ala Ala Ala Gly Ala Val Val Gly Gly Leu
 115 120 125
 Gly Gly Tyr Met Leu Gly Ser Ala Met Ser Arg Pro Leu Ile His Phe
 130 135 140
 Gly Asn Asp Tyr Glu Asp Arg Tyr Tyr Arg Glu Asn Met Tyr Arg Tyr
 145 150 155 160
 Pro Asn Gln Val Tyr Tyr Arg Pro Val Asp Arg Tyr Ser Asn Gln Asn
 165 170 175
 Asn Phe Val His Asp Cys Val Asn Ile Thr Val Lys Gln His Thr Val
 180 185 190
 Thr Thr Thr Thr Lys Gly Glu Asn Phe Thr Glu Thr Asp Ile Lys Ile
 195 200 205
 Met Glu Arg Val Val Glu Gln Met Cys Ile Thr Gln Tyr Gln Arg Glu
 210 215 220
 Ser Gln Ala Tyr Tyr Gln Arg Gly Ala Ser Val Ile Leu Phe Ser Ser
 225 230 235 240
 Pro Pro Val Ile Leu Leu Ile Ser Phe Leu Ile Phe Leu Ile Val Gly
 245 250 255

<210> 29
 <211> 254
 <212> PRT
 <213> Mus musculus

<400> 29
 Met Ala Asn Leu Gly Tyr Trp Leu Leu Ala Leu Phe Val Thr Met Trp
 1 5 10 15
 Thr Asp Val Gly Leu Cys Lys Lys Arg Pro Lys Pro Gly Gly Trp Asn
 20 25 30
 Thr Gly Gly Ser Arg Tyr Pro Gly Gln Gly Ser Pro Gly Gly Asn Arg
 35 40 45
 Tyr Pro Pro Gln Gly Gly Thr Trp Gly Gln Pro His Gly Gly Gly Trp
 50 55 60
 Gly Gln Pro His Gly Gly Ser Trp Gly Gln Pro His Gly Gly Ser Trp
 65 70 75 80
 Gly Gln Pro His Gly Gly Gly Trp Gly Gln Gly Gly Gly Thr His Asn
 85 90 95
 Gln Trp Asn Lys Pro Ser Lys Pro Lys Thr Asn Leu Lys His Val Ala
 100 105 110

Gly	Ala	Ala	Ala	Ala	Gly	Ala	Val	Val	Gly	Gly	Leu	Gly	Gly	Tyr	Met
	115						120					125			
Leu	Gly	Ser	Ala	Met	Ser	Arg	Pro	Met	Ile	His	Phe	Gly	Asn	Asp	Trp
	130					135					140				
Glu	Asp	Arg	Tyr	Tyr	Arg	Glu	Asn	Met	Tyr	Arg	Tyr	Pro	Asn	Gln	Val
145					150					155					160
Tyr	Tyr	Arg	Pro	Val	Asp	Gln	Tyr	Ser	Asn	Gln	Asn	Asn	Phe	Val	His
				165					170					175	
Asp	Cys	Val	Asn	Ile	Thr	Ile	Lys	Gln	His	Thr	Val	Thr	Thr	Thr	Thr
		180						185					190		
Lys	Gly	Glu	Asn	Phe	Thr	Glu	Thr	Asp	Val	Lys	Met	Met	Glu	Arg	Val
	195						200					205			
Val	Glu	Gln	Met	Cys	Val	Thr	Gln	Tyr	Gln	Lys	Glu	Ser	Gln	Ala	Tyr
	210					215					220				
Tyr	Asp	Gly	Arg	Arg	Ser	Ser	Ser	Thr	Val	Leu	Phe	Ser	Ser	Pro	Pro
225					230					235					240
Val	Ile	Leu	Leu	Ile	Ser	Phe	Leu	Ile	Phe	Leu	Ile	Val	Gly		
			245						250						

<210> 30

<211> 254

<212> PRT

<213> Mesocricetus auratus

<400> 30

Met	Ala	Asn	Leu	Ser	Tyr	Trp	Leu	Leu	Ala	Leu	Phe	Val	Ala	Met	Trp
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Thr	Asp	Val	Gly	Leu	Cys	Lys	Lys	Arg	Pro	Lys	Pro	Gly	Gly	Trp	Asn
		20					25						30		
Thr	Gly	Gly	Ser	Arg	Tyr	Pro	Gly	Gln	Gly	Ser	Pro	Gly	Gly	Asn	Arg
	35					40					45				
Tyr	Pro	Pro	Gln	Gly	Gly	Gly	Thr	Trp	Gly	Gln	Pro	His	Gly	Gly	Gly
	50				55					60					
Trp	Gly	Gln	Pro	His	Gly	Gly	Gly	Trp	Gly	Gln	Pro	His	Gly	Gly	Gly
65				70					75						80
Trp	Gly	Gln	Pro	His	Gly	Gly	Gly	Trp	Gly	Gln	Gly	Gly	Gly	Thr	His
			85					90						95	
Asn	Gln	Trp	Asn	Lys	Pro	Ser	Lys	Pro	Lys	Thr	Asn	Met	Lys	His	Met
		100					105						110		
Ala	Gly	Ala	Ala	Ala	Ala	Gly	Ala	Val	Val	Gly	Gly	Leu	Gly	Gly	Tyr
	115					120						125			
Met	Leu	Gly	Ser	Ala	Met	Ser	Arg	Pro	Met	Met	His	Phe	Gly	Asn	Asp
	130					135					140				
Trp	Glu	Asp	Arg	Tyr	Tyr	Arg	Glu	Asn	Met	Asn	Arg	Tyr	Pro	Asn	Gln
145					150					155					160
Val	Tyr	Tyr	Arg	Pro	Val	Asp	Gln	Tyr	Asn	Asn	Gln	Asn	Asn	Phe	Val
			165						170					175	
His	Asp	Cys	Val	Asn	Ile	Thr	Ile	Lys	Gln	His	Thr	Val	Thr	Thr	Thr
		180						185					190		
Thr	Lys	Gly	Glu	Asn	Phe	Thr	Glu	Thr	Asp	Ile	Lys	Ile	Met	Glu	Arg
	195					200						205			
Val	Val	Glu	Gln	Met	Cys	Thr	Thr	Gln	Tyr	Gln	Lys	Glu	Ser	Gln	Ala
	210					215					220				
Tyr	Tyr	Asp	Gly	Arg	Arg	Ser	Ser	Ala	Val	Leu	Phe	Ser	Ser	Pro	Pro
225					230					235					240
Val	Ile	Leu	Leu	Ile	Ser	Phe	Leu	Ile	Phe	Leu	Met	Val	Gly		
			245						250						

<210> 31
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 31
Tyr Tyr Arg Arg Tyr Tyr Arg Tyr Tyr
1 5

<210> 32
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 32
Cys Tyr Tyr Arg
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<210> 33
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 33
Cys Tyr Tyr Arg Arg Tyr Tyr Arg Tyr Tyr
1 5 10

<210> 34
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide

<400> 34
Cys Lys Tyr Glu Asp Arg Tyr Tyr Arg Glu
1 5 10